1. TAX THEORY AND TAX PRACTICE: THE PROBLEMS OF DEFINING, MEASURING AND ASSESSING TAX BASES

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Abstract. The wide gap between tax theory and tax practice may be traced back, among other things, to the focus in tax theory on the level and optimal structure of tax rates, assuming that tax bases are consistently defined, precisely measurable and readily and uniformly assessable. This approach overlooks the variances between tax design, tax law, tax impact, tax incidence and tax perception. The effects of taxes on efficiency and equity depend not just on the tax-rate schedule adopted but also on differences in tax treatments resulting from the definition, measurement and assessment of tax bases. The Italian experience in the field of income taxation shows the extent to which the definition, measurement and assessment of tax bases matter. Many problems associated with defining, measuring and assessing tax bases, which the personal nature and high progressivity of income tax had contributed to highlighting and accentuating, remain still unresolved and require further research of a better understanding of the rationale, causes and effects of many differentiated tax treatments.

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1. This year, the theme of the 20th Annual Conference of the Italian Public Economics Society (Siep) is the economics of taxation, an area in which there is a very wide gap, particularly in Italy, between theoretical and econometric analysis, on the one hand, and the reality of tax policy and practice, on the other.

It could be that the observed divide between tax theory and practice is only apparent and that Keynes' general remarks[1] regarding the unwitting influence, for better or for worse, of the ideas of economists, apply in this case.

It may be that the traditional Italian tendency, noted by Buchanan[2], of focusing attention on theoretical aspects whilst neglecting issues of tax reform, is still widespread and prevalent among scholars in the field of public finance.

It might perhaps be that, on the one hand, the growing specialisation and refinement of the theoretical and empirical analysis of various aspects of the economics of taxation and, on the other, continuous changes in an increasingly complex economic and social reality, make it difficult for tax theorists and tax practitioners to communicate with each other (even though a frank exchange of opinions could perhaps prove useful to both).

Yet it could also be that, as in other fields of theoretical and applied economic research, analytical models and econometric estimates provide ambiguous findings and mixed results, whilst tax practitioners expect unequivocal and practicable propositions.

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[1] "The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back". (Keynes 1936, 383). Obviously, Keynes was not referring to the statements of some of the Finance Ministers of recent years, though his remarks nevertheless seem very apt.

[2] "With rare exceptions, the Italians have not been greatly interested in fiscal reforms [...]. No reforming spirit has guided the Italians. This has made their arguments seem sterile and devoid of normative content". (Buchanan 1960, 34 and 72).

The fact is, however, that a gap between theory and practice does exist – and quite a wide one at that. In taxation theory, the focus is on the level and optimal structure of tax rates, assuming that tax bases are consistently defined, precisely measurable and readily and uniformly assessable.

In reality, when moving from theoretical models to the concrete application of any form of taxation deemed optimal, it is almost always the case that the effects produced in terms of efficiency, equity and other significant economic variables are different from the effects anticipated on the basis of the theoretical model. The more that certain constraints vary and are subject to change from the way they are formulated in the theoretical model, the greater the difference between the theoretical and practical effects.

Each of these constraints – namely, the prevailing social and economic structure, the degree of international integration, institutional set-ups, the manner in which the tax administration is organised, and the attitudes and behaviours of taxpayers – may be approximated by a set of indicators that are more or less representative depending on the availability of data and experiences to draw on. Their relative importance also varies in different circumstances, as do the ways in which they interact. These constraints are often ignored or inadequately considered in many current analyses, which assume the existence of well-defined and consistently and uniformly measurable and assessable tax bases, thus focusing research efforts on optimal tax-rate schedules.

However, it is my belief that the discrepancy between the anticipated theoretical effects and the actual effects produced is not only the result of the application of tax-rate schedules that differ from those suggested by theory, but the consequence, above all, of differences in the definition, measurement and assessment of tax bases. These differences depend on the abovementioned five groups of constraints and changes in them – in other words, on their actual

configuration and development in a given country during a given period of time. As a result, tax-related analyses and proposals that do not take these factors into account and are based solely on findings drawn from inevitably aggregated and simplified theoretical models can be misleading.

I will seek here to demonstrate the basis for this assertion, briefly running through certain aspects of the Italian experience with regard to comprehensive progressive personal income tax (Cppit), although the same reasoning could be applied to other taxes such as consumption taxes. The reference made to the Italian experience is only by way of example. It is not intended as a description much less an appraisal of that experience, but rather solely as a means of drawing attention to several points which highlight the importance of defining, measuring and assessing tax bases (in this case, "income") in analysing relationships and the gap existing between tax theory and tax policy.

2. In very simplified terms, the gap between tax theory and tax practice may be traced back to variances between ideal taxation (tax design), legally-imposed taxation (tax law), the effective impact of taxation (in other words, who is formally liable to pay the tax: tax impact), the effective incidence of taxation (namely, who ultimately bears the tax: tax incidence) and perceived taxation (or tax perception). By clarifying the issues raised by each of these phases and the relationships between them, it is possible to gain an idea of the extent to which theoretical indications and concrete applications of a given form of taxation coincide or deviate, and to compare the effects anticipated by the theoretical model (in terms of revenue yield, efficiency, equity, income, stabilisation and growth) and the effects that are actually generated in a specific economic and institutional system of a given country during a given period of time. Before examining how, in the Italian case, these various phases and the transition from one phase to the next has been influenced by the varying

degree of priority accorded to different objectives and the varying stringency of the different constraints, it is worth mentioning a few general issues that arise during each phase when the tax base in question is "income".

Even at a theoretical level, there is no uniform approach to the choice of a tax base that is "income-based". The three income formulations generally referred to – namely, in Lindahl's terminology, income as produce, income as earnings and income as consumption or expenditure – can each include different components depending on the timeframe and on the accounting standards and face-value inflation-adjustment criteria adopted[3]. Moreover, once again at the theoretical level, "it is possible to arrive at alternative definitions of scientific importance which should be kept quite separate"[4].

The distinction that it is advisable to maintain between the different theoretical definitions of income that may be used (and are used in models) as a tax base for "income tax", should also be accompanied by an awareness of the "remarkable difference between the meaning (or meanings) of income, as the notion appears to the economic theorist, and the meaning which is given to it, which indeed has to be given to it, when income is considered as an object of taxation"[5].

It is not my intention here to enter into the debate regarding the most appropriate or optimum theoretical definition of "income" to adopt as the base for a comprehensive progressive personal income tax[6], partly because the proposals put

[3] For a clear analysis of these issues, with particular reference to the most widely-used concept of "income" for tax purposes (namely, income as earnings) and certain aspects of the Italian system, see Longobardi (2009). An attempt to link the evolution of the Italian tax system as well as tax reforms introduced in other industrialised nations with developments in the field of optimal income taxation theory can be found in Artoni, Micheletto and Zanardi (2007).

[4] Lindahl 1933, 399. Lindahl examines four concepts of income: the three recalled here as well as income as interest. It should be noted that in relation to income as earnings as the ideal basic reference model (in the Haigh-Simons version), of many modern personal income taxation systems (including those in the US and Italy), he "observes that "this concept [,..] hardly provides an ideal solution of the problem of how to arrive at a concept of income that will be both tenable theoretically and practically useful at the same time". (Lindahl 1933,405)

[5] Hicks 1981, 73. Naturally, Hicks adds that although the meanings of income for theoretical and taxation purposes are different, they are nevertheless connected. He also recalls that from the inception of English income tax, it was a firmly held principle that "incomes of different sorts had to be reached in different ways".

[6] This is a debate which at times has been quite heated, as in the crowded controversy over the so-called "double taxation of savings" or, for instance, the criticisms levelled (by the most well-known supporter of the definition of

forward in relation to the tax base for income tax have always, and to a greater extent in recent times, been mixed or "hybrid" in nature. It is enough to assume that some definition of income, whether pure or hybrid, has been formulated and adopted as the theoretical term of reference of a Cppit to be levied in a given context.

3. Whatever the theoretically preferred tax base definition might be, it is unlikely that it will be legislatively adopted in identical form. Indeed, normally this does not happen for the majority of taxes except in some very simple cases, such as excise duties. In the case of many income tax systems, including that in Italy, there is actually no general definition of "income" in tax laws. Instead, "categories" of income are listed (of which there are 6 in Italy), each with their own rules. Often, they are also considerably differentiated, even within individual categories, in terms of the definition of tax bases, the criteria for their measurement and the methods used to assess them.

In this way, already at the tax law level, a very large number of differentiated tax treatments (Dtts) is created consisting of various exclusions, exemptions, deductions and allowances applicable to different types of income-producing activity and to the most varied of personal circumstances (whether of individuals or businesses), as well as being differentiated according to the various sources of income and the various uses to which income is put. The inextricable mess of tax legislation that results, made up of innumerable Dtts that are often inconsistent and uncoordinated, provides ample opportunity for tax arbitrage. In order to address the overexploitation of such opportunities and the proliferation of new forms of avoidance transactions, especially of a financial nature, there is a constant need for

income as earnings) at the proposals put forward by Irving Fisher (one of the most noted proponents of the definition of income as consumption) in his paper "Income in Theory and Income Taxation in Practice". (Simons 1938, 225 sqq.)

legislative amendments and regulatory innovations, which become increasingly more complex, difficult and costly to manage for tax authorities and taxpayers.

In moving from tax design to tax law, the theoretical concepts of income are broken down and mixed together in a vast array of legislation, from which it is no longer possible to distil any clearly identifiable and consistent common guiding principles. Legislative output aimed at combating the continual development of new forms of avoidance transactions grows ever larger and more detailed. Added to this, rather than as an alternative, recourse is also had to general "substance-over-form" rules, such as those requiring verification of the actual nature and economic content (or economic substance) of such transactions, regardless of how they are framed formally. These are rules that are complex to interpret and difficult to apply for tax officials that are not always adequately trained and skilled. Their application may require the assistance and opinion of economists (as has occurred for some time now in the antitrust field) and a willingness on their part to talk and cooperate with legal professionals who use different language, methods and principles.

As the muddle of legislation grows increasingly confused, resort to courts of law and judicial interpretation become unavoidable in many cases and play a role that is no longer negligible in the very definition of the nature and scope of tax bases[7].

In many countries, recent decades have seen repeated calls and several reform proposals for the simplification of tax laws, the reduction of Dtts and a widening of the tax base. The results have, however, been modest and temporary in nature, because tax law is influenced by factors that have only been partially examined and which greatly contribute to its further complication by increasing the resort to Dtts. These factors include: the characteristics of the decision-making process with respect to tax legislation and the role played in that process by bureaucrats, political

[7] This has been true for a long time at the level of individual national States (with reference to the definition of taxable income under the old Italian system, cf. Berliri 1949), but it has become increasingly important even at the supranational level: see, in this regard, the role played in recent years by the European Court of Justice.

parties, parliamentary bodies and rules, and organised interest groups; the objective complexity and the continual transformation of the economic and financial situation; and the use of Dtts as a means of obtaining consensus and exploiting political rents[8]. In Italy too, occasional efforts to restore neutrality, including within specific categories of income (for instance, between various types of investment income or between various types of business income), or horizontal equity between specific categories of workers (for instance, between those receiving income from employment and those who are self-employed), have essentially been in vain and, in some cases, counterproductive. The tax laws that resulted from such attempts have often been even more complicated than those that previously existed.

4. Regardless of how complicated tax laws may be, they also need to be applied by tax officials and taxpayers (often with the assistance of tax advisors). The phase involving enforcement of tax laws by authorities and the more or less willing and full compliance by taxpayers is another crucial stage where the gap between tax theory and practice tends to become wider[9].

Indeed, the Dtts provided for by law are, in turn, applied in a manner that is not uniform but rather differentiated according to the different assessment methods employed and depending on the behaviour of tax officials, taxpayers and tax judges. The extent and methods of implementation of tax laws (and the Dtts they provide for) are influenced by numerous factors that have been the subject of a wide body of literature which examines: the resources, competences, organisation, procedures and incentives of tax officials; the effectiveness of the penalty system and litigation

[8] In commenting on the American reform of .1986 that had substantially and surprisingly reduced tax rates and broadened the tax base, thereby greatly reducing the number of Dtts, Buchanan recalls that he had predicted, on the basis of a typical public choice model, that American Congress would soon revert to increasing tax rates on the broadened tax base and would then reintroduce many Dtts (that is, that it would "[start] reselling the rents"). Indeed, this is precisely what happened. (Buchanan and Musgrave 2000, 86-87)

[9] With respect to the problems of managing a Cppit extended to apply to high number of taxpayers, see Pedone 1984. In relation to the factors that in recent years have exacerbated these problems, making the application of tax laws even more differentiated and arbitrary, see Aaron and Slemrod 2004.

proceedings; and the strategic behaviours of taxpayers and the role of their tax advisors. I do not intend to recall here, not even by way of summary, the problems identified and the solutions proposed and adopted in respect of each of these aspects. What is of interest here is to note that the various solutions formulated in theory or adopted in practice to address each of these issues involves Dtts that become evident when examining who effectively pays (though not necessarily ultimately bears) the taxes in question.

It is still a matter of debate as to whether, in order to assess their effects, it is better to consider the impact of legally-imposed tax rates or effective (average and marginal) tax rates, and how the latter should and could be calculated. For our purposes, it is enough to note that referring to one or the other produces very different results depending on the various characteristics of individual types of income-producing activity and taxpayers. In many cases, effective tax rates represent average values, whose aggregated trends can conceal the non-uniform – and sometimes conflicting – patterns of individual components in terms of tax impact.

Turning to consider effective tax in terms of incidence (rather than impact), it becomes necessary to introduce specific assumptions about shifting the tax paid by the taxpayer. Alongside uniform zero or total tax-shifting, frequently used for their explanatory simplicity in many models, the assumption of a differentiated shifting of tax levied on even a "simple" tax base (such as wages, or income from work as a whole) "gives rise to a redistribution of income tax that is difficult to grasp and is certainly not referable to any reasonable criteria of justice"[10].

Finally, it should be recalled that taxes with the same incidence can be perceived differently and that it is tax *perception,* often in conjunction with the perception of other aspects of public action, that influences the behaviour of

[10] Steve 1984, 285.

taxpayers and their views on the "fairness" of a tax[11]. Moreover, the perceived justice and acceptability of income taxes depends in large measure on the extent and characteristics of Dtts, which reflect differentiations linked to the definition, measurement and assessment of the various types of income, as we will see when we examine certain aspects of the Italian experience in this field.

5. Before considering the Italian experience in the income tax field to demonstrate the extent to which the definition, measurement and assessment of various tax bases matter, I would like to point out that the personal and progressive nature of Cppits complicates any analysis of those issues, which also apply in the case of real and proportional income taxes.

Progressivity, which entails a consideration of total personal income, has been justified in many ways that can more or less be analytically examined and categorised in terms of some concept or other of ability to pay.

One justification, that by longstanding tradition has been given, is that of not imposing "undue hardship" on taxpayers that would force "a cut in socially desirable consumption"[12]. Thus, in order to guarantee a minimum level of disposable income, a flat tax with a high tax-free allowance might suffice (although whether this should be differentiated and on the basis of what criteria is unclear).

However, for progressivity above an exempt income threshold, it is necessary to envisage some relationship between income patterns and tax-paying capacity

[11] The perception of a tax may militate against the adoption of a tax that is "optimal" from a strictly economic point of view. This is, for instance, the case with respect to tax on land rent in the Ricardo model, in which "the taxation of rent does not influence the maximum equilibrium rate of growth or the other equilibrium values of the system, because scarce resources have the properties of non-basic products; moreover, among the institutional factors influencing the rate of accumulation and growth in the R-model, a reduction in the amount of a given pre-tax rent plays no role, because it is assumed that all rents are spent in unproductive consumption. So, one would expect that, since the taxation of rent does not affect the equilibrium values of the system and does not influence the process of actual economic growth, it should have been strongly recommended by Ricardo. But this is not the case" (Pedone, 1969, 80). One of the possible reasons that might explain Ricardo's position is that a tax on land rent could be perceived as a violation of the "natural" right of ownership and lead to a widespread acceptance of the possibility of also impinging on other natural rights.

[12] Goode 1976, 17.

patterns, based on some form of utility sacrifice principle. Indeed, at least in the United States, the country where formal progressivity of personal income tax reached its highest levels (at the beginning of the 1950s, the marginal tax rate was 94%), this approach to progressivity was adopted rather than relying on abstract principles as it was deemed the most effective means to reduce the inequalities that are inevitably created in a market economy. Despite being aware of the disincentive effects created (to be reduced to a minimum without compromising progressivity vis-a-vis individuals), this approach to reducing inequalities was still viewed as the least damaging to the functioning of a market economy compared to other forms of public intervention, such as protectionism or public ownership[13].

However, in order to function and "be equalized, a progressive income tax must be related to the taxpayer's *total* net income from all sources, and individual income components must be measured in a *uniform* manner for all income categories" (italics added)[14]. This proposition was reiterated by the most staunch defender of Cppit: "The effective degree of progression of the income tax depends on the comprehensiveness of the tax base as well as on the tax rates"[15]. Yet, as noted, the measures proposed and adopted to widen the tax base, by determining its various components in a uniform manner, have not proved successful.

Thus it was that alongside the evident original difficulties, linked to the different measurement and assessment of tax bases and to Dtts introduced to mitigate the disincentive effects, further difficulties emerged as a result of increased international integration and changes in technology and in production structures. In order to counter the disincentive effects of high marginal tax rates and the distortive effects of the proliferation of Dtts, formal progressivity was considerably reduced

[13] The position in favour of a high level of progressivity, despite an awareness of its disincentive effects (to be reduced to a minimum), is clearly set out in Simons 1950.

[14] Cosciani 1984, 40, who goes on to say: "The deviation from effective income of one or more components that make up total income, whether attributable to the legal definition of income or to exemptions or total or partial evasion, does not merely commensurately reduce the tax burden it is intended to alleviate, but also translates into tax relief for other income that is subject to normal taxation rules" – in other words, into Dtts.

[15] Pechman 1990, 9.

more or less across the board (as in the case of the Flat Tax or Dual Income Tax) and a largely illusory attempt was made to significantly broaden the tax base by reducing Dtts.

Hence, in Italy, just as in nearly all industrialised nations, personal income tax continues to be the predominant source of government revenue, but the main purposes that facilitated its widespread adoption in nearly all countries after the Second World War (including the reduction of inequalities and automatic income stabilisation) have – both in formal and, above all, practical terms – gradually abated. The effectiveness of personal income tax has been greatly reduced and its tax base is "very narrow, confined essentially to income from work and pensions"[16]. Traditional issues, such as the use of averaging systems for fluctuating incomes, the tax treatment of income accumulated over a number of years and paid as a lump sum and forms of compensation for fiscal drag, may have lost their significance in theoretical analysis but still merit some attention on a practical level. Detailed analyses of tax-rate schedules, also taking into account some forms of public family support, or dealing with the extent of the redistributive effect, almost exclusively refer to labour income and do not address the problem of overall inequalities that, not just in Italy, are on the increase (in relation to which, perhaps it would be worthwhile to come up with some new virtuous tax instead of the more extensive direct public intervention measures that have been proposed).

The reduction of the level of progressivity has alleviated the inevitable distortions linked to the personal nature of income tax, which requires a choice of tax unit (such as individual income, family total income, or weighted family income). Where there is a high level of progressivity, the choice of tax unit can have very significant consequences on the labour market and the structure of consumption, as well as on the pattern of interpersonal relationships and on social organisation. In

[16] Visco in De Vincenti and Paladini 2008, XI.

practice, efforts to take into account the different sizes of families and the diverse types of income earned by the various family members have led to an increase in the number of Dtts linked to these aspects.

Although they have been alleviated by recent tendencies towards reducing progressivity, the problems associated with defining, measuring and assessing tax bases, which the personal nature and high progressivity of income taxes had certainly contributed to highlighting and accentuating, remain unresolved. In fact, in the case of taxes with rates that remain uniform and constant despite variation in the size of tax bases, it becomes immediately evident that the differentiation in tax treatment between different taxpayers or types of income-producing activity does not solely depend on disparities in tax rates, but also on differences in the definition, measurement and assessment of tax bases. The significance of these issues emerges clearly when the experience in Italy following the introduction of Cppit is considered.

6. The tax reform that was adopted in Italy in 1973-74 with the introduction of Cppit (or Irpef, the acronym by which Italy's personal income tax is known) led to an unprecedented transformation of the tax system - a full-blown "fiscal cataclysm"[17]. During the thirty-year period following the full implementation of the tax reform between 1975 and 2005, the increase in the overall tax burden in Italy (including social security contributions) was around three times higher than the average for Oecd countries (16% of Gdp in Italy as opposed to 6%).

During the same period, fiscal pressure in the strict sense (that is, excluding social security contributions) increased in Italy by 15 points compared to an increase of little more than 3 points in the Oecd average and in the Eu-19 member countries. In other countries of the Group of 7, during the same period, fiscal pressure in the

[17] Fuà and Rosini 1985, 9.

strict sense fell slightly in Germany, the United States and Canada, remained essentially unchanged in the United Kingdom and rose a little in Japan and slightly more in France[18].

The increase in the tax burden in Italy over the last thirty years may thus be considered as exceptional compared to the trend experienced in the majority of other industrialised nations, and, in many cases, as constituting a countertrend. This point should be kept in mind, even though to a large extent the increase saw Italy closing the gap on the European and Oecd averages, which it has now decidedly exceeded.

In addition to the intensity and speed of this increase in fiscal pressure, mainly concentrated between 1975 and 1995, the means by which this increase was brought about is worth noting, with around half of the extraordinary increase in the overall tax take attributable to progressive personal income tax. In the case of Italy, the increase in revenue from this tax in Gdp terms has, in the thirty years following the reform, been greater than that in any other country of the Oecd zone. During the same period, the average for all European countries and the average for other Oecd country groupings experienced an essentially steady or slightly reduced incidence of Cppit, while a significant reduction was seen in countries like Germany, the United Kingdom and Sweden (the latter, however, started from and remains at a considerably higher level).

This increase led to a radical and unexpected change in the composition of the tax take in the years immediately after the reform came into effect. While in 1970, direct taxes represented 28% of total taxes and indirect taxes accounted for 72%, by

[18] Clearly, it is only with much caution that conclusions may be drawn from this and the other quantitative ratios mentioned, both because of the shaky theoretical foundations that support the presumed effects of different tax levels and schedules and because of the composition and measurement of the numerator and denominator. In relation to the numerator, for instance, the resort (varied as well as variable over time) to forms of tax expenditures – as an alternative to equivalent subsidies or transfers from the public budget – in support of families and businesses, should be taken into account. In the cases examined in this text, the order of magnitude seems such as to throw certain peculiar characteristics of recent experiences in Italy into sharp relief. See Pedone 2006 for a more extensive discussion.

1979 the situation had already almost been reversed, with the proportion of direct taxes (51%) in that year exceeding – albeit marginally – that of indirect taxes (49%). This trend continued to gain strength over time and personal income tax assumed an increasingly more prominent role.

Several conclusions can be drawn from these observations. Firstly, a tax, even if good in theory, comes up against insuperable limits in practice when it is called on to fulfil purposes that are too wide, and particularly when it produces an extraordinary and uneven – rather than a moderate and constant – increase in total revenue.

Furthermore, these limits are even more evident when an individual tax contributes almost exclusively to an exceptional increase in total revenue[19]. It should be recalled that, at the time when the reform package was being formulated, it was proposed that Cppit be accompanied by a net wealth tax and, in particular, a broad-based consumption tax. The widespread and successful opposition to this latter form of taxation was based not on theoretical analyses of what in abstract terms was the preferable tax base, but on considerations specific to the country and the time. In particular, reference was made to the "excessive", burden imposed by indirect taxes up until the mid-1970s and to the associated emergence of smuggling and tax avoidance practices. The purported regressivity of such taxes was also emphasised. In the end, it was decided not to increase indirect taxes given the operation of wage-indexing mechanisms which would have exacerbated their impact on prices at a time when inflation was already high. Whatever the reasons for this choice, and however well-founded they were, it should be recalled that often the fairness of a tax is not to be judged in isolation, but in relation to other taxes within

[19] "It is precisely because I am convinced that ft is not possible to expect from any one tax, not even personal income tax, more than it can deliver, and because I am convinced that all taxes have major shortcomings, that I believe it is necessary to have a system which incorporates different tax bases and different criteria for the distribution of tax liability" (Steve 1984,285).

the system and the actual configuration of the previously mentioned constraints in a specific situation.

7. The sharp rise in income tax revenue that occurred immediately after the introduction of Irpef was mainly attributable to three factors that were not accurately anticipated and were not readily foreseeable in terms of their eventual magnitude.

The first of these factors was the immediate and extensive widening of the pool of taxpayers. The number went from 4,800,000 taxpayers of the supplementary tax (a kind of surtax levied in addition to the schedular taxes on income that applied in Italy before the reform) in 1973, to 22,753,000 Irpef taxpayers in 1974. A change of these proportions cannot merely be considered in quantitative terms, as the extended application of income tax to a large number of taxpayers also has qualitative consequences in that it: increases the number of personal circumstances that are differentiated in many respects; increases the demand for Dtts, and probably the frequency with which they are granted, with negative consequences on voluntary compliance, which is a necessary precondition for the smooth functioning of a mass taxation system; requires the adaptation of the resources and working methods of tax authorities, with the adoption of selective and, in many cases, indirect audit methods; and makes the introduction of reforms or even partial changes to Cppit more difficult because of the possession by the same taxpayer – even in small amounts – of different types of income (for instance, income from work and income from property), which triggers a kind of intrapersonal distributive conflict that paralyses attempts to change the tax treatment of various types of income.

The second factor, which is particularly significant for the purposes of this discussion, is the introduction of new methods of tax assessment and, above all, of

tax collection, including the extension of withholdings at source, forms of self-assessment and the payment of tax instalments on account. Some of these innovations were very effective in securing a high and regular flow of tax revenue, but because of their varied application to different types of income, they actually accentuated the differentiation of tax treatments of such income, due also to the methods used to check tax returns, the conducting of tax audits and the imposition of penalties by tax authorities.

The third factor which contributed to the extraordinary increase in revenue, at least until the beginning of the 1990s, was the high inflation triggered by the 1973 oil crisis which, through its interaction with the progressivity of Irpef, gave rise to a huge fiscal drag. This led to a sudden increase in average and marginal tax rates levied on the income of those unable to avoid the application of the tax. The result was an exacerbation of the difference in tax treatment between those, on the one hand, who were fully caught, and those, on the other, who had been safeguarded and protected from the full and effective application of the progressivity of the tax since the introduction of the reform, or who had succeeded in sheltering behind legal forms of avoidance (exploiting and widening the gaps and loopholes in the tax system), or who had been driven to or had hidden themselves within the maze of tax evasion, helped along by the small scale of their activities, the difficulty of tracing their transactions and the lack of skills on the part of tax authorities needed to manage a mass taxation system.

Here too, a further brief conclusion may be drawn, namely: that a tax that is theoretically good may only remain so in practice if it does not apply to a pool of taxpayers that is too wide and too differentiated; if it allows for the adoption of technical assessment and collection methods that are, as much as possible, automatic, uniform and effective; and if it is able to adapt to profound and

unforeseen changes in external circumstances that substantially alter its development and the distribution of its tax base.

8. One of the causes for the radically different effects – than those anticipated – of the original reform plan, or what was left of it in the laws that were actually enacted, was in fact the gap between the socio-economic conditions used as a reference point for the underlying model adopted during the formulation stage of the reform and the profoundly changed circumstances in which the reform came to be applied.

In this regard, one need only recall that during the gestation period of the tax reform package, the Italian economy was characterised by: integration within a relatively stable, framework of international economic and financial relations (which, among other things, provided for controls over capital movements); a rather high and not overly variable Gdp growth rate; a relatively low rate of inflation; a still modest level of public expenditure which was well below that prevailing in other major European countries; a current account surplus of the public budget close to the average for industrialised nations; and a trend towards growth in the size and organisational capacity of businesses.

However, around the mid-1970s when the tax reform package came into force, the Italian economy was facing radically altered and, to some extent, opposite conditions to those that had previously prevailed. The international economic and financial situation was very troubled and uncertain, and de facto capital mobility pressures were growing, heralding the full-scale liberalisation that would be undertaken in the second half of the 1980s; the rate of Gdp growth was slowing and had become more uneven; the rate of inflation exploded and stayed very high because of pressures from increases in raw material prices and the cost of labour; growth in public spending accelerated until it exceeded, in Gdp terms, the average

for European countries; the budget deficit grew rapidly despite strong growth in tax revenue; and the trend towards industrial concentration was curbed while certain large companies had run into difficulties.

It is unlikely that the same theoretical tax model could be equally valid in situations so profoundly different and in the face of such a different configuration of the significant constraints referred to in paragraph 1 above. There were major changes in certain constraints that would have impacted on the applicability in practice of any income tax model. These included: the degree of monetary freedom (which was affected by international economic and financial integration) and national autonomy in taxing income from capital; the increase in well-organised companies that could act as large tax collectors on behalf of the State (despite seeking to avoid payment of taxes they owed); and, more generally, the variety of productive or organisational structures adopted by businesses of different sizes which required differentiated assessment methods, each of which involved their own problems.

9. The influence of these and other variable constraints shows that the main cause of the problems encountered in the implementation of Irpef in Italy, and Cppit generally, lies in some respects with the very concept of income adopted. I have already alluded to my belief that the problems of current comprehensive progressive personal income taxes do not solely stem from the multiplicity of adjustments made to total income through various forms of deductions and allowances, but result particularly from underlying difficulties in defining, measuring and assessing the individual types of income that make up total income. These difficulties have been exacerbated by changes in economic and financial structures and relations that have increasingly made the definition, measurement and

assessment of the various types of income for tax purposes more reliant on established conventions (such as recognised accounting standards).

The difficulties of definition and measurement increase according to the level of complexity of the economic and financial structure. Calculating net product does not present any particular problems in that it is obtained by comparing uniform and constant magnitudes over time that are measurable in physical terms, such as, for instance, the quantity of wheat input with the quantity of wheat output. However, as is well-known, matters become complicated with the adoption of production processes that, for the production of individual goods, use intermediate inputs comprising other produced goods in different proportions, necessitating the resort to valuation criteria in order to arrive at a calculation of net income.

Different situations have become even more differentiated in cases involving durable capital assets and unforeseeable technological innovations, which have necessitated the use of increasingly more conventional and ad hoc criteria to measure income or "net profit". Even these criteria, despite their being continuously changed and updated, have proved increasingly inadequate as the level of commensurability between input and output in terms of constant and uniform physical units has fallen, due to product innovation, the expansion of service industries (with the development of personal and financial services and so on) and the key role now played by the production and exchange of information as significant indicators of the expectations and behaviour of the various parties involved.

In such situations, which reflect the current conditions of a continuously evolving complex economy, the definition and measurement of various types of income are inevitably based on conventional criteria, which, as much as it may be sought to base them on objective and neutral factors, involve unavoidable subjective considerations. The result is differentiated tax treatments for different

types of income, depending on the conventional calculation criteria adopted in individual cases, trends in certain external conditions (such as the rate of inflation, or technological and financial innovation), taxpayers' and tax officials' incentives and individual behavioural responses.

In addition to these general difficulties, which apply to all modern income tax systems, in Italy there have also been problems stemming from the laudable but illusory decision to adopt an all-inclusive concept of taxable income based on an analytical determination of effective income[20]. The decision was praiseworthy because it was aimed at restoring neutrality and simplicity to the tax system, which should have led to an examination and review of the basis for the many tax concessions that had accumulated over time and were differentiated according to categories of taxpayers, types of income and the applicable forms of tax withholding. Yet it was also an illusory choice because the problems of modern income taxes arise not only once adjustments have been made to total income, but also, and, above all, stem from the difficulties of defining and measuring "at source" the income components that make up total income. These difficulties impact to varying degrees on the different categories of income, depending on the extent to which it is possible to detect gross receipts and on the varying levels of complexity of the mutable link between gross receipts and net income.

The argument that all income is equal for the purposes of income tax and should therefore be treated in the same manner may, from the point of view of simplicity and neutrality, seem attractive. However, it ignores the fact that most of such income does not exist in a "pure state". Rather, the income is "derived" and "adjusted", according to conventional rules which leave ample margin for discretionary assessment on the part of tax authorities and encourage opportunistic behaviour on the part of taxpayers.

[20] Longobardi and Pedone 1994, 495.

10. The Italian experience in the field of income taxation demonstrates the importance of the issues associated with the definition, measurement and assessment of tax bases in addition to those relating to the application of an optimal tax-rate schedule. Further analysis is required of the extent to which and the ways in which these issues are linked to and depend on the actual country-specific configuration and development of the previously mentioned constraints, namely: the prevailing economic and social structure; the degree of international integration; institutional set-ups; administrative organisation and the attitudes and behaviours of taxpayers.

In the case of Italy, the general difficulties involved in administering modern income taxes have been exacerbated to the extent they have been because, from the outset, structural constraints have been ignored that are linked to the distinctive characteristics of Italy's business environment, which, more so than in other countries, is composed predominantly of small businesses, self-employed workers and a high level of fragmentation, heterogeneity and variability in the productive system[21].

Similarly, from the outset there have inevitably been highly differentiated tax treatments according to the classification of various types of income (cases in point include forms of income from capital or the catchall category of "other income"[22]), the criteria used to determine the relevant tax base (for instance, income from land and buildings, or business income), and the assessment methods and rules used[23]. In

[21] This was acknowledged by one of the principal architects of the Italian tax reform package (Visentini 1993), who considered it "positive, on the whole, except in relation to the important issue of taxation of the income of small businesses" and freelance professionals, who, however, quantitatively make up a very significant proportion of the Italian business landscape.

[22] For a detailed analysis of the development of the highly differentiated and variable tax treatment of capital and investment income, according to the nature and characteristics of the relevant investment vehicle, the issuer and the recipient, see Ricotti and Sanelli 2006.

[23] In relation to which, what matters is their actual uniform application, including the case of simple tax bases such as income from work. For instance, the structure of employment can have an effect on the uniform application of the tax even in respect of similar types of income from work, in that "an accurate assessment of income from work is

relation to the latter, various simplified or special tax regimes have been introduced in order to deal with certain characteristics of the Italian business environment. These measures have included: the introduction of flat-rate schemes for determining turnover; the use of presumptive turnover coefficients and, without regard to the latter, presumptive income coefficients; various versions of the so-called *"redditometro"* (an indirect income calculator tool); and, finally, the now long-running, tortuous and as yet unfinished saga of the so-called *"studi di settore"* (Business Sector Studies for the estimation of turnover, costs and income of firms in specific industries).

These developments merit further detailed examination in order to highlight, on one hand, the reasons for and the consequences of the resort to different (direct and indirect) assessment methods for determining the tax base during the audit stage, and on the other hand, to identify the minimum necessary conditions regarding the quality of data, the formulation of the analytical model and estimate methods, which would enable a correct and effective use of statistical indicators for the selection of audit targets, thereby preventing forms of "econometric avoidance"[24].

The different methods and options used for assessing similar types of income (including within the categories of labour income, income from capital and business income) confirm that the problems associated with personal income taxes do not only stem from the important aspects most frequently analysed – which relate to the largely arbitrary choice of tax unit (individual or family) and adjustments made

more likely for employees of firms that have a well-formalised organisational structure, a requisite found more frequently in large firms than small ones". Consequently, given the existence of employment structure differences, "an income taxation model that functions with tolerable error margins in the United Kingdom may on the contrary be completely inappropriate – as it is riddled with loopholes – in Italy" (Fuà 1985, 39).

[24] The report of the committee appointed to examine "legal and business issues arising in the field of Business Sector Studies" highlighted a "massive and documented manipulation of significant information for the calculation of income conformity thresholds" (the so-called *soglie di congruità*, used in Italy to determine the conformity of declared turnover with the minimum presumed turnover for the specific type of business activity conducted). The committee also noted that the approach used to define and determine the associated indicators and parameters could "introduce major disparities between businesses, often to the disadvantage of small taxpayers or those deemed to be so" (Rey 2008, 7).

to total income (deductions) or gross tax (allowances and tax credits) – but are also, above all, linked to the difficulties in defining, measuring and assessing the individual types of income that make up total income.

In particular, for business income tax, the differentiations in tax bases are not only the result of the more or less strict reference made by tax laws to different accounting standards depending on the type of taxpayer to whom they apply (one need only look at the differentiation produced by the introduction of the lass for certain types of companies) and the resort to alarming practices involving tax-base shifting between different jurisdictions by multinational companies. Rather, they also stem from the application, particularly with regards to small businesses[25], of presumptive indicators for the purposes of defining, measuring and assessing tax bases or to break the tax bases down into constituent components (for instance, labour income and income from capital) that are subject to different tax treatments.

These various factors, in addition to those previously mentioned, should be taken into account and analysed carefully when tax changes or tax reforms (hopefully of an increasingly more far-reaching nature) are proposed aimed at improving the efficiency and equity of the tax system, which depend not just on the tax-rate schedule adopted but also on differences in tax treatments resulting from the definition, measurement and assessment of tax bases. Research dedicated to further examining these aspects could contribute to a better understanding of the rationale, causes and effects of many differentiated tax treatments, thus helping to bridge the gap between tax theory and tax practice in very important fields for our discipline, such as the relationships between taxation and economic growth or the various forms of tax competition and tax harmonisation.

[25] A recent broad overview of the problems associated with defining and measuring taxable income in the case of owner-managed businesses and of tax treatments differentiated according to the various legal forms that businesses may take can be found in Crawford and Freeman 2008.

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